

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-2 and 7-15 are pending in this application. Claims 1 and 7-8 are amended; Claims 12-15 are added; and Claim 3 is canceled without prejudice or disclaimer by the present amendment. Support for the new and amended claims can be found in the original specification, claims and drawings.<sup>1</sup> No new matter is presented.

In the outstanding Office Action, Claims 1-4 and 7-11 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 5,699,474 to Suzuki et al. (hereinafter Suzuki) in view of U.S. Patent No. 6,864,747 to Mercier.

In response to the rejection based on Suzuki and Mercier, Applicants respectfully submit that amended independent Claims 1, 7 and 8, and new independent Claim 12 recite novel features not taught or rendered obvious by the applied references.

Amended independent Claim 1 relates to a transmitting apparatus for converting a coded bit stream into a trick play output (e.g., slow play, fast forward, fast rewind, etc.). The apparatus comprises a means for accumulating the coded bit stream, the coded bit stream including an intra-frame coded picture, a forward predictive-coded picture, and a bidirectionally predictive-coded picture. An output control means controls an output of the coded bit stream in an output mode corresponding to a designated trick play operation. As noted above, Claim 1 is amended to recite the subject matter of dependent Claim 3 and further recites, in part, that the transmitting apparatus comprises:

...rewriting means for rewriting control data which specifies a displaying order of the pictures with respect to said coded bit stream, and rewriting control data that specifies an

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<sup>1</sup> Independent Claims 1 and 7-8 are amended to incorporate the subject matter of canceled Claim 3; new Claims 13-15 depend from independent Claims 1 and 7-8 respectively, and recite subject matter deleted from these claims by the present amendment; and Claim 12 recites substantially similar features as those recited in independent Claim 1, but is drafted to avoid interpretation under 35 U.S.C. § 112, sixth paragraph.

accumulation amount of a virtual input buffer of a decoder in a picture header to ***an invalid value***...

Independent Claims 7-8 and 12, while directed to alternative embodiments, are amended to recite substantially similar features. Accordingly, the arguments presented below are applicable to each of independent Claims 1, 7-8 and 12.

As described at p. 11, l. 16-p. 12, line 4, a value of vbv\_delay (accumulation amount of a virtual input buffer of a decoder) in the picture header is rewritten to 0xFFFF, which is a code indicative of invalidity of vbv\_delay.

Turning to the applied references, Suzuki describes a method and apparatus for decoding MPEG-type data reproduced from a recording medium during a high-speed reproduction operation. Suzuki, however, fails to teach or suggest “rewriting control data that specifies an accumulation amount of a virtual input buffer of a decoder in a picture header to ***an invalid value***” as recited in amended independent Claim 1.

In rejecting this claimed feature, p. 5 of the Office Action cites col. 14, ll. 21-36 of Suzuki. This cited portion of Suzuki describes a method for altering the vbv\_delay value for high-speed reproduction. More particularly, col. 14, ll. 30-36 describes that the vbv\_delay value is written to one, and the bit counter 87 adds bit quantity of corresponding picture in syntax analysis by VLD 84, and head converter 86 rewrites vbv\_delay from that value. Namely, at the time of reproduction, header converter 86 rewrites vbv\_delay into value at the time of high speed reproduction.

Thus, the vbv\_delay value is converted into a valid value that it used to reproduce the data during high-speed reproduction, and the assignment of this data to vbv\_delay does not constitute rewriting vbv\_delay to ***an invalid value***.

Col. 14, ll. 37-50 of Suzuki describes two additional methods for altering the vbv\_delay value for high speed reproduction. One method is to insert sequence\_start\_code (sequence\_header) to the leading portions of respective pictures of high speed reproduction

data delivered from switch 83, or inserting sequence\_end\_code to the end portions of respective pictures resulting in a VBV reset by the leading portion of each picture in picture signal decoding unit 102. Thus, the vbv\_delay value is reset for each picture, and is still used as a valid value for reproducing data. Another method described by Suzuki is to convert vbv\_delay into "3FFFFFFF" at the time of high speed reproduction to indicate that current rate is variable rate. Thus, the vbv\_delay value is used to indicate that the current rate is variable, and is not set to an invalid value as recited in the pending claims.

Thus, Suzuki fails to teach or suggest rewriting the vbv\_delay value to an invalid value upon performing the high-speed reproduction. More particularly, Suzuki fails to teach or suggest "rewriting control data that specifies an accumulation amount of a virtual input buffer of a decoder in a picture header to *an invalid value*" as recited in amended independent Claim 1.

Mercier, the secondary reference, fails to teach or suggest modifying the vbv\_delay value based on a trick play operation, and therefore fails to cure the above noted deficiencies in Suzuki.

Accordingly, Applicants respectfully request the rejection of independent Claim 1 (and the claims that depend therefrom) under 35 U.S.C. § 103 be withdrawn. For substantially similar reasons as provided with respect to independent Claim 1, Applicants submit that independent Claims 7-8 and 12 (and the claims that depend therefrom) patentably define over the applied references.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1-3 and 7-15 patentably define over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested

Respectfully submitted,

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